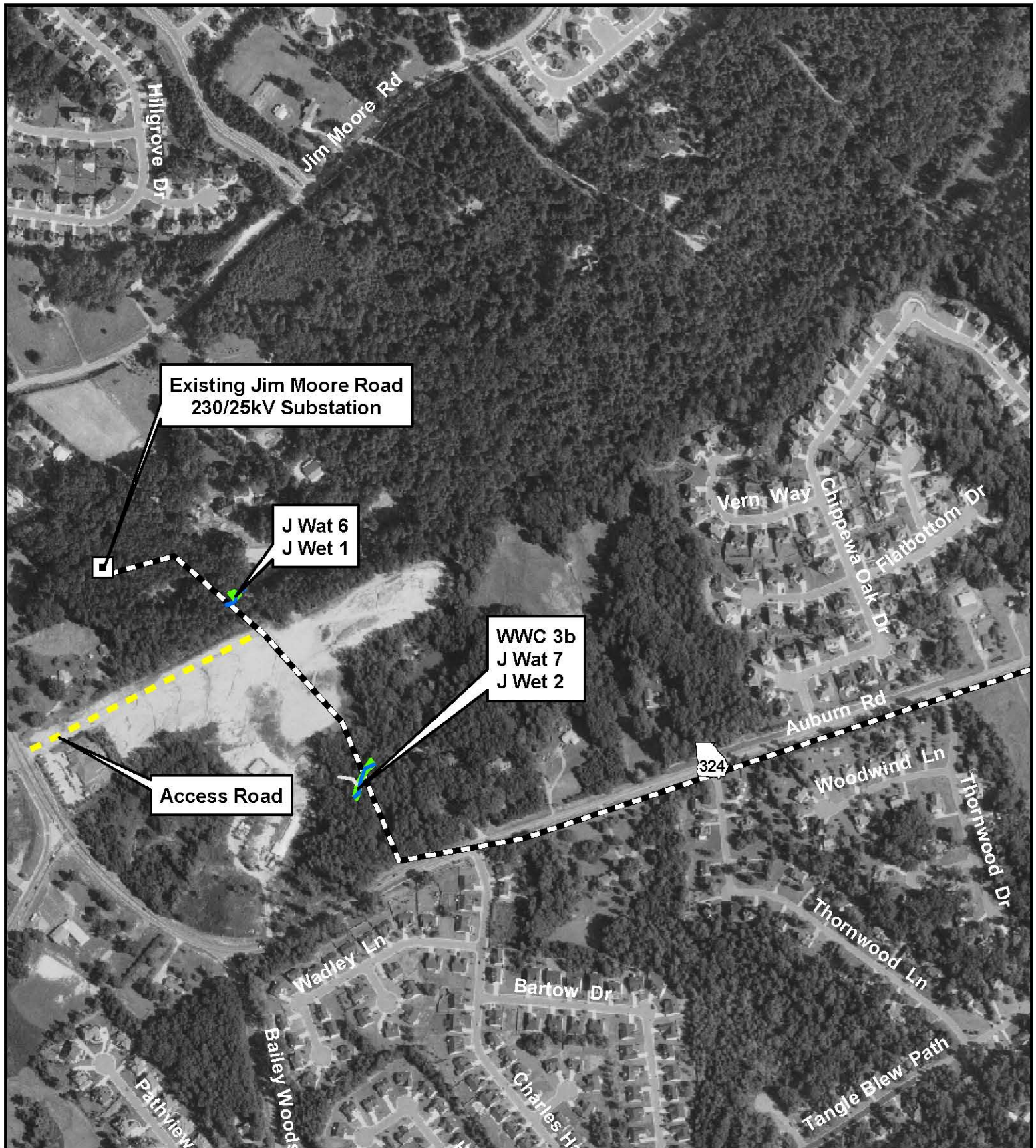


### **6.3 Wetlands**

Wetlands are defined by 33 CFR Part 328 and protected by Section 404 of the Clean Water Act, which charges the U.S. Army Corps of Engineers with the regulation of discharges of “dredged or fill” material into waters of the United States, including wetlands and other special aquatic sites. To construct a substation in a wetland, unsuitable material would be excavated and clean fill dirt would be placed to build a stable and suitable soil foundation for substation construction. Such activities would necessarily be authorized by a permit from the Corps of Engineers.

Georgia Transmission contracted with a consultant to conduct a wetland delineation of the proposed transmission line right-of-way. JJ&G conducted the wetland delineation in the Summer of 2007. Figure 8 shows the mapped Jurisdictional Waters in relation to the proposed transmission line. Two jurisdictional wetlands, fifteen jurisdictional waters, and two non-jurisdictional wet weather conveyances were identified within the transmission line easement. The jurisdictional wetlands, which will be crossed aurally only, were classified as palustrine, forested, forested-emergent, emergent, or scrub shrub-emergent systems. The jurisdictional streams were classified as riverine lower perennial or intermittent systems. Most of the jurisdictional waters will be aurally crossed, with only a few requiring at-grade rock crossings. Off right-of-way access roads will be repaired or created at the time of construction in upland areas to minimize impacts to jurisdictional areas, most likely under Nationwide Permit 12 (NWP 12). (See Jurisdictional Areas in Appendix 9.1 for the *Biological Field Survey Report*). No structures will be located within stream buffers. Stream buffers will be hand cleared and trees removed to minimize impact. No fill is anticipated in the wetlands due to the construction of the proposed project.



# Jim Moore - Sharon Church

230 kV Transmission Line

**Figure 8.A**  
Waters of the US

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral

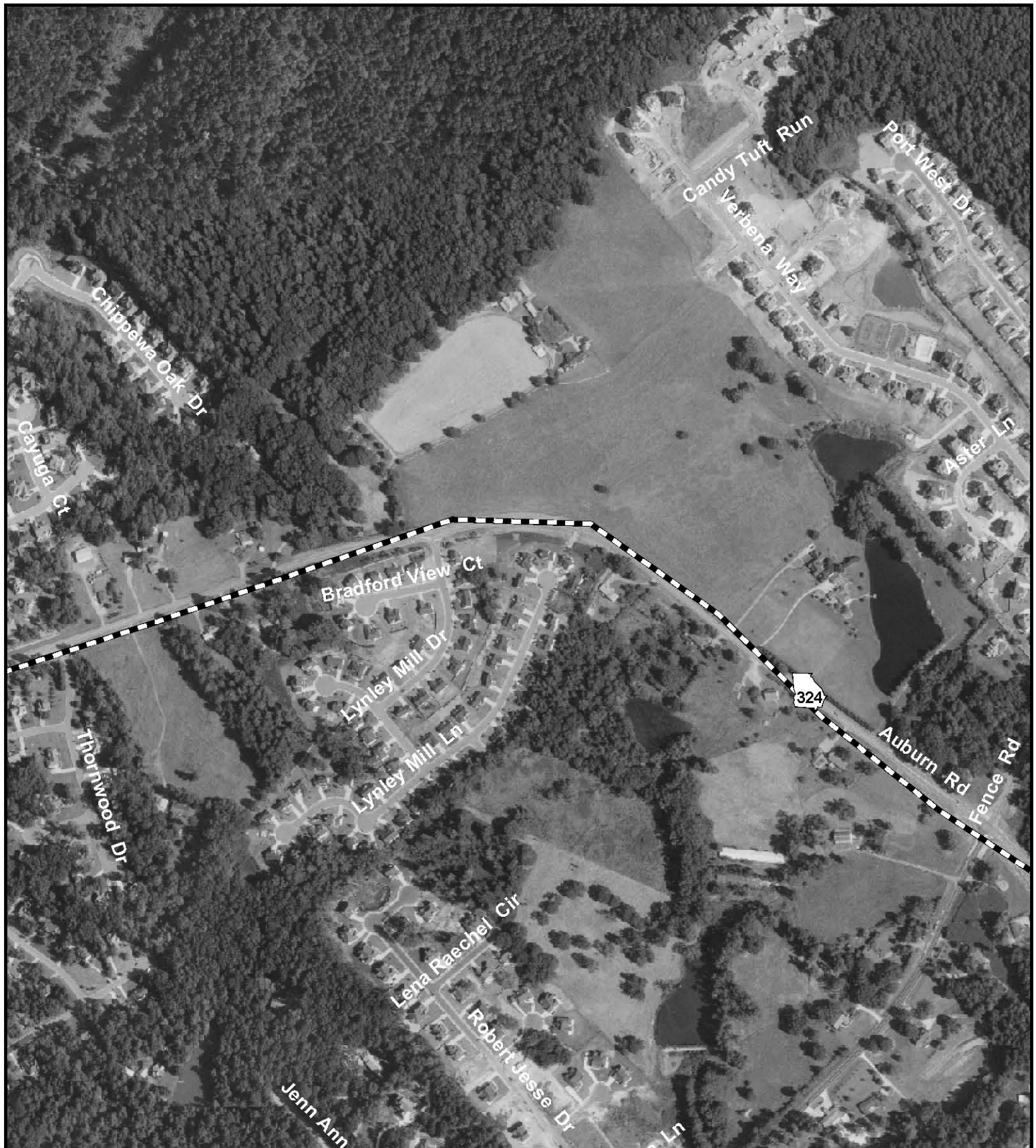


**GeorgiaTransmission**



1" = 500'  
0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.B**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral

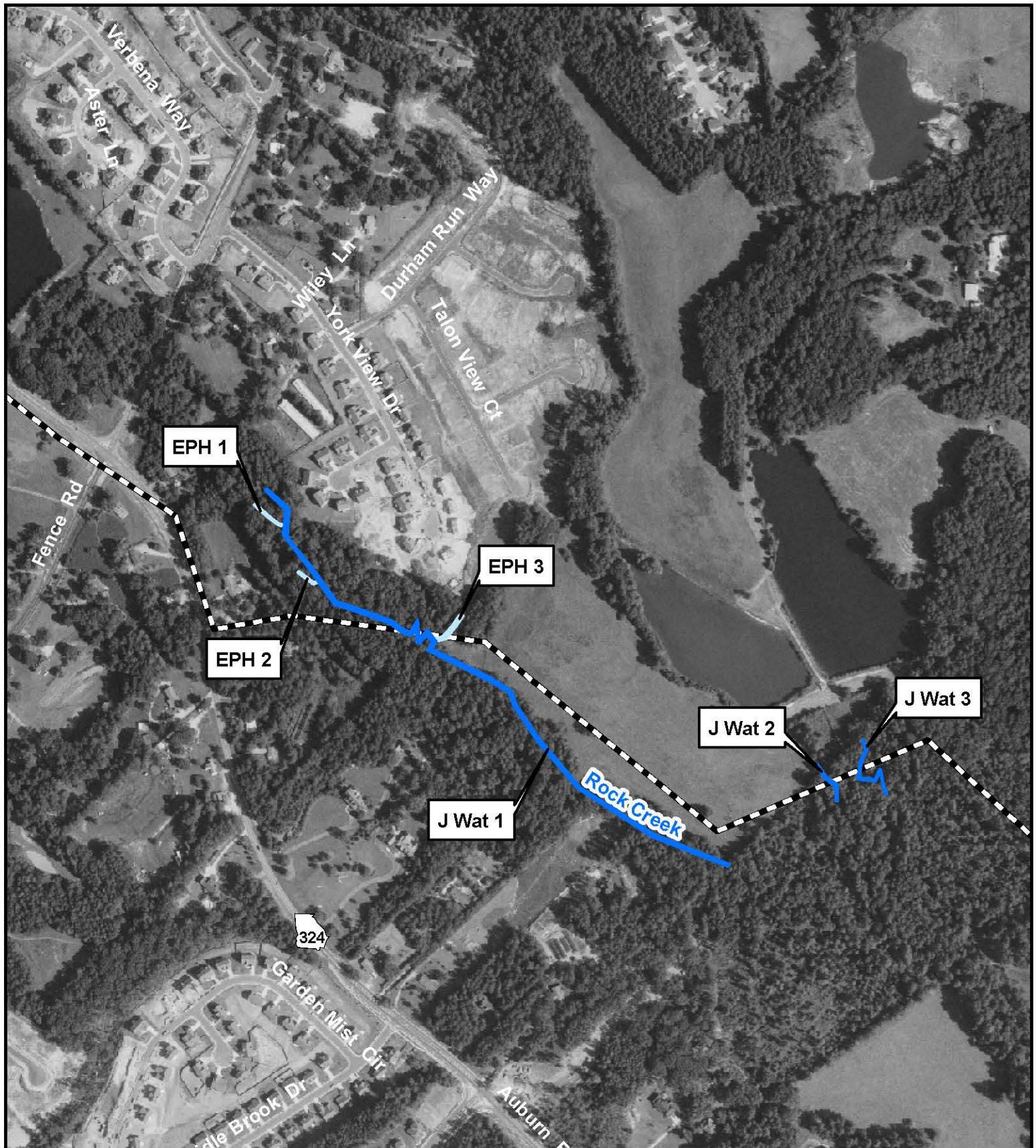


**GeorgiaTransmission**



1" = 500'  
0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.C**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

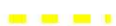
Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



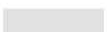
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



**GeorgiaTransmission**



1" = 500'  
0 250 500'

Plot: D. Enderle



Jim Moore - Sharon Church

230 kV Transmission Line

Figure 8.D  
Waters of the US

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



Access Road



Jurisdictional Water

Jurisdictional Wetland



Wet Weather  
Conveyance

Ephemeral



GeorgiaTransmission



1" = 500'  
0 250 500'

Plot: D. Enderle



H.4

Jim Moore - Sharon Church

230 kV Transmission Line

**Figure 8.E**  
Waters of the US

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

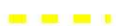
Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



**GeorgiaTransmission**



1" = 500'  
0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.F**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



**GeorgiaTransmission**



1" = 500'  
0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.G**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



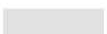
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



**GeorgiaTransmission**



1" = 500'

0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.H**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



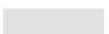
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



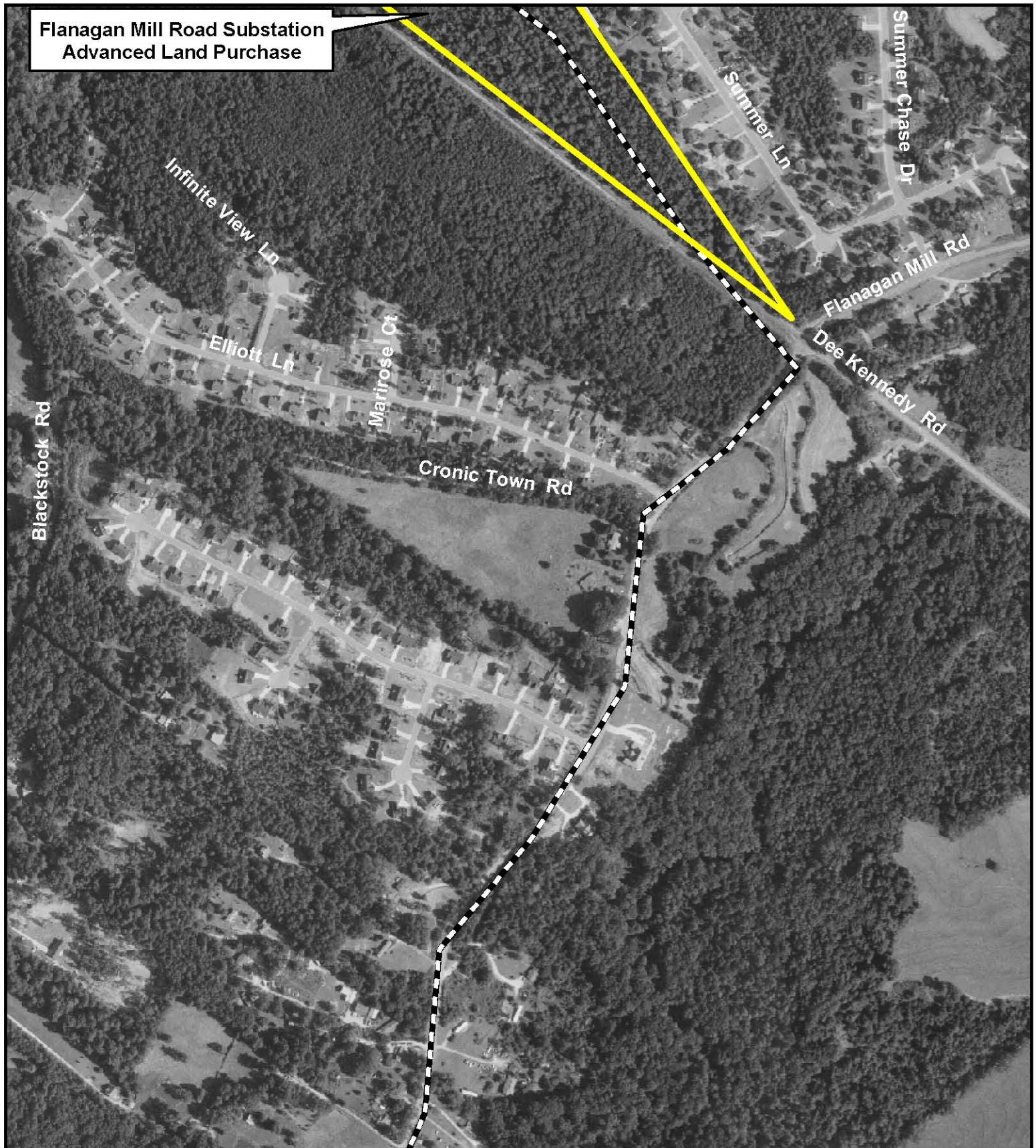
**GeorgiaTransmission**



1" = 500'

0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.1**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral

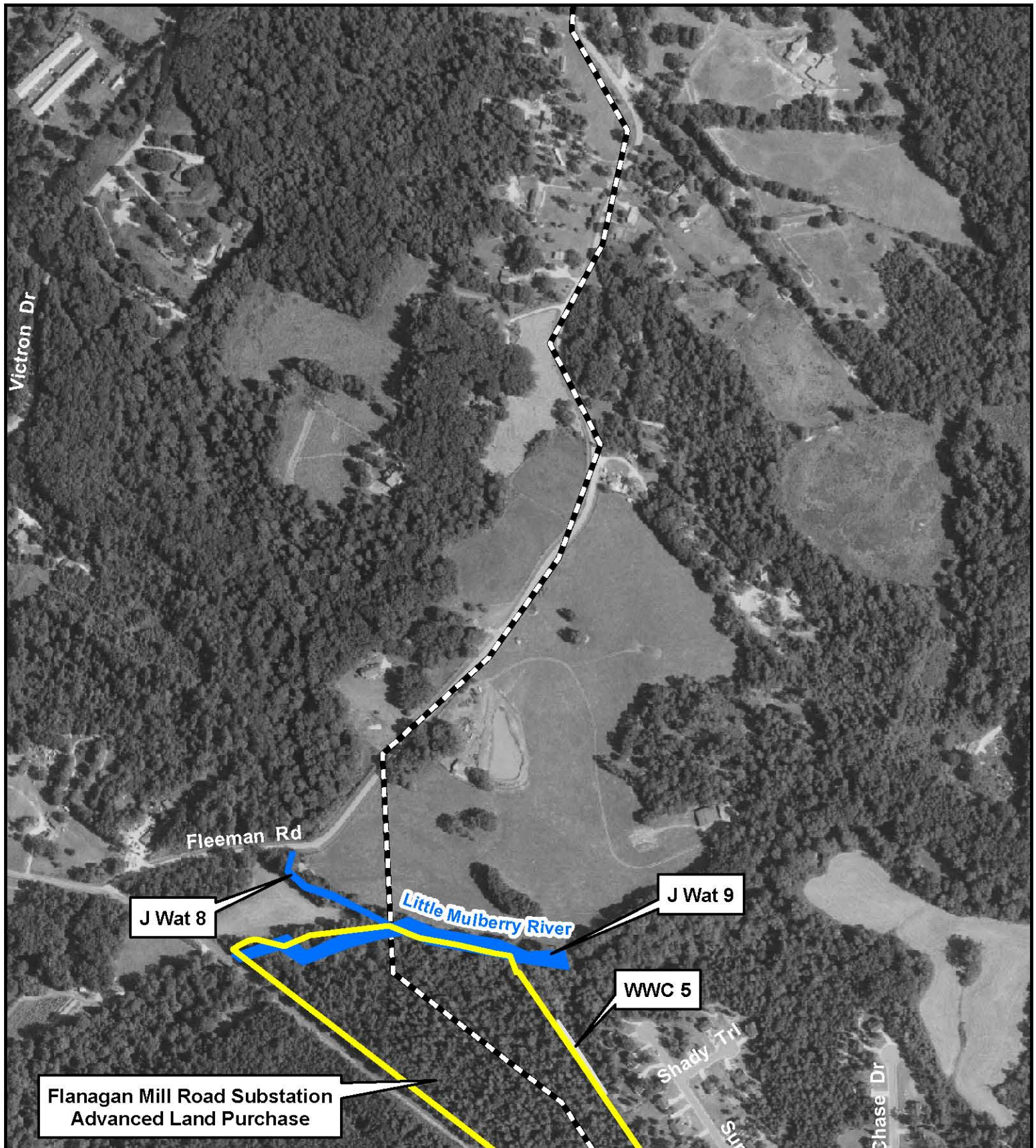


**GeorgiaTransmission**



1" = 500'  
0 250 500'

Plot: D. Enderle



Jim Moore - Sharon Church

230 kV Transmission Line

**Figure 8.J**  
Waters of the US

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



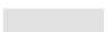
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



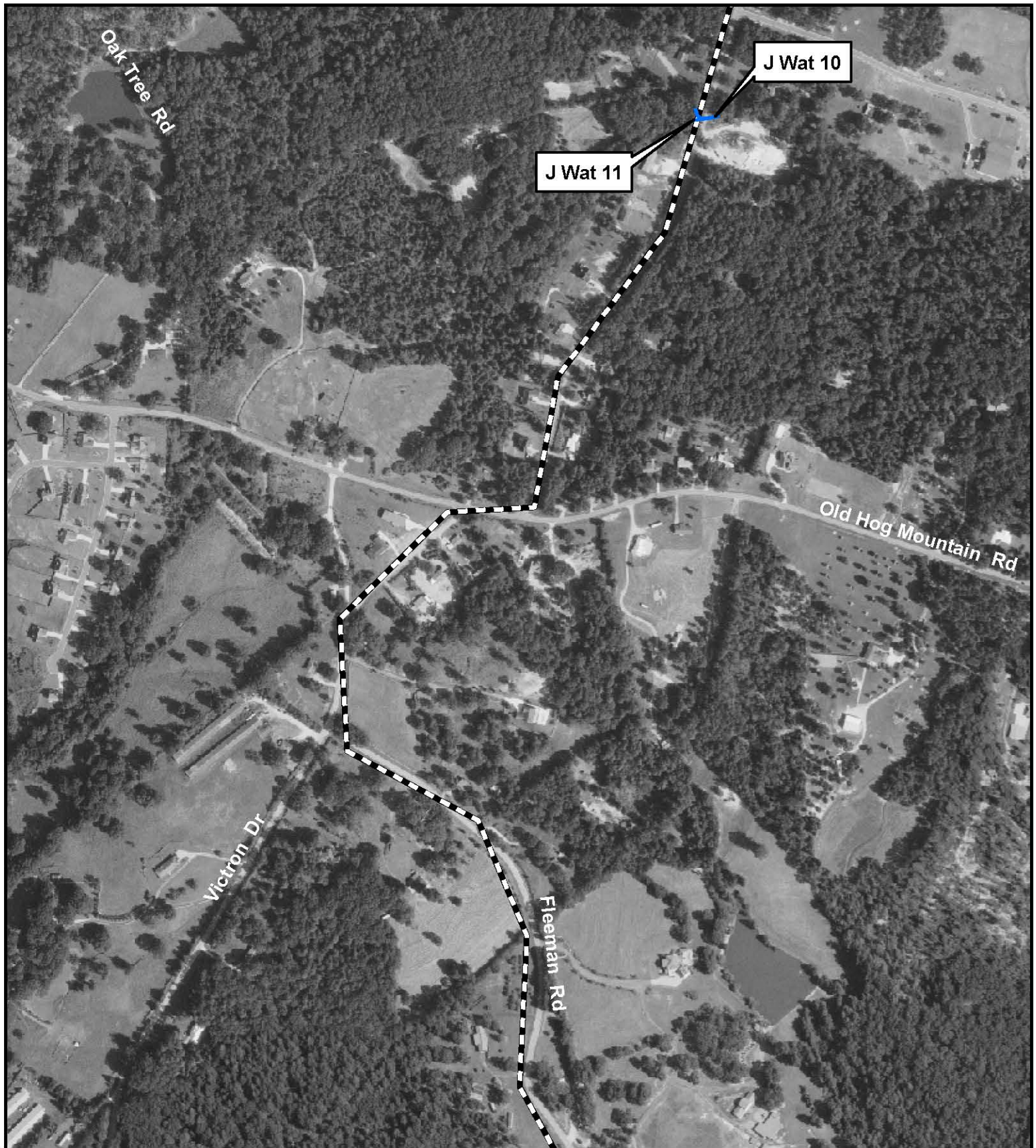
**GeorgiaTransmission**



1" = 500'

0 250 500'

Plot: D. Enderle



Jim Moore - Sharon Church

230 kV Transmission Line

Figure 8.K  
Waters of the US

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



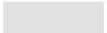
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



GeorgiaTransmission



1" = 500'

0 250 500'

Plot: D. Enderle



**Jim Moore - Sharon Church**

230 kV Transmission Line

**Figure 8.L**  
**Waters of the US**

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

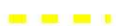
Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



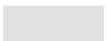
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



**GeorgiaTransmission**



1" = 500'

0 250 500'

Plot: D. Enderle



# Jim Moore - Sharon Church

230 kV Transmission Line

**Figure 8.M**  
Waters of the US

County: Barrow  
& Gwinnett

Date: 3/20/08

Project #: P77850

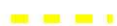
Date of Aerial  
Photography: 09/09/05



Preferred  
Transmission Line



Existing Substation



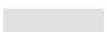
Access Road



Jurisdictional Water



Jurisdictional Wetland



Wet Weather  
Conveyance



Ephemeral



**GeorgiaTransmission**



1" = 500'

0 250 500'

Plot: D. Enderle

## **6.4 Cultural Resources**

Section 106 of the National Historic Preservation Act (NHPA) requires that any Federal agency, which includes RUS, review the impact of any undertaking (construction, loan guarantees, contract approvals, etc.) on historic properties. Historic properties, for the purposes of Section 106 review, are those properties listed in or eligible for listing in the National Register of Historic Places (NRHP). The Section 106 review process is administered by the Advisory Council on Historic Preservation, which in turn has delegated this responsibility to the State Historic Preservation Officer (SHPO) of the Georgia Department of Natural Resources (GADNR) Historic Preservation Division (HPD). HPD is responsible for implementing 36 CFR Part 800, the Protection of Historic Properties.

To assist RUS in complying with the NHPA and the implementing regulations, Georgia Transmission normally engages consultants to identify historic properties, as defined by 36 CFR Part 800 that may be affected by the proposed project. Georgia Transmission is a third party participant in a Programmatic Agreement with the RUS, Georgia State Historic Preservation Officer, and the Advisory Council on Historic Preservation on October 11, 2001. This Programmatic Agreement facilitates compliance under Section 106 and 110 of the National Historic Preservation Act [16 U.S.C. §470(f)] as authorized by the Advisory Council's regulations in 36 CFR §800.14 for construction, modification and relocation of transmission facilities by Georgia Transmission. Survey reports will be distributed to the State Historic Preservation Office, Georgia State University, the University of Georgia, the local Regional Development Center, and local historical society. Documents may be withheld from public distribution and will be located at the SHPO and approved locations at the Universities to protect sensitive information.

Contracting firms are responsible for consulting with the State Historic Preservation Officer (SHPO) and reviewing the Georgia State Site Files to determine if there are any known historic properties (archaeological sites and/or historic structures) within the Area of Potential Effect (APE) of the project. Consulting firms also conduct field surveys for historic properties. If a transmission project is determined to have an adverse effect on a National Historic Landmark, a National Register listed historic property, a traditional cultural property, or an eligible historic district, Georgia Transmission will initiate consultation with the SHPO. Georgia Transmission and the SHPO will agree on a plan of resolution.

### **6.4.1 Archaeological Resources**

Historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) include significant historic and prehistoric archaeological resources. To determine the possible existence of archaeological sites eligible for listing in the NRHP, Georgia Transmission consulted with Southeastern Archeological Services, Inc. (SAS) to survey the proposed transmission line easement and advanced land purchase site for archeological resources.

SAS conducted a Phase 1 Archaeological survey to locate, describe, and evaluate archeological resources within the APE for the proposed transmission line and ALP site. Background research identified no previously recorded archaeological resources within the area of direct or indirect effect. The first section of the line that is being rebuilt with the existing Jim Moore Road 230 kV Transmission Line was previously surveyed by SAS in 2005. No resources were found in this section of the project and no resurvey was necessary. SAS conducted the field investigation by walkover observation in areas of good visibility at ground level and through the placement of systematic shovel tests at 100-foot (30-meter) transect intervals for the ALP site and the same linear intervals within the transmission line easement. Eight archeological sites were encountered during the field survey, but SAS determined that only one of these sites (9BW99) is eligible for nomination to the NRHP.

Site 9BW99 is a fairly large, subterranean Middle Woodland site located in Barrow County, Georgia. The site is on the south side of Fleeman Road, sitting above the floodplain to the east of the Little Mulberry River. The site is located in an open pasture used for livestock grazing. Any necessary clearing, will be limited to hand clearing. Georgia Transmission will also span the site, not placing poles in the site, with the nearest pole across the road from the site. No poles and associated equipment will cross the site during construction, and no access roads through the site for construction or maintenance should be required.

#### **6.4.2 Historic Structures**

Historic properties listed in or eligible for listing in the National Register of Historic Places (NRHP) include significant historic structures 50 years of age or older as well as significant archaeological sites. Georgia Transmission contracted with Historic Preservation Consulting (HPC) to conduct a historic resources survey for the proposed project. HPC documented thirty-four resources within the area of potential effect (APE). Only one resource was NRHP-eligible within the APE of the proposed project; however, the resource will not be adversely affected by construction of the proposed transmission line due to its distance and vegetative screening, blocking visibility to the resource.

### **6.5 Threatened and Endangered Species**

Section 7 of the Endangered Species Act requires every Federal agency, including RUS, to consult with the U.S. Fish and Wildlife Service (USFWS) to ensure that any action it authorizes is not likely to jeopardize the continued existence of any "listed species" (threatened or endangered plants or animals) or result in the destruction or adverse modification of designated critical habitat. The Fish and Wildlife Service Interagency Cooperation regulations (50 CFR Part 402) require that either the agency (RUS) or the applicant (Georgia Transmission) request the list of threatened and endangered species that may occur within the study area of the project. The normal practice is for Georgia Transmission's consulting biologist, on behalf of Georgia Transmission, to request the list from USFWS as well as other appropriate resource agencies and databases. The consultant then conducts a protected species survey of the proposed project impact area to determine if any listed species may be affected. If no listed species or critical habitat is found, RUS is notified in this section of the Environmental Report.

For the purposes of better understanding the distribution of flora and fauna of the State, the Georgia legislature passed the *Wildflower Preservation Act of 1973* and the *Endangered Wildlife Act of 1973*. The Natural Heritage Program of the Georgia Department of Natural Resources administers these two Acts. This program and the previously mentioned Acts have two purposes. The first is to inventory the diverse flora and fauna of the State. The second purpose of these Acts is to protect "State listed" species of plants and wildlife. Plants listed by the State are protected on public lands such as State property, Federal property, and on any other land that is not held by a "person" which means a private individual, firm, corporation, partnership, proprietorship, or other legal entity. Animals listed by the State are protected from capture, killing, or sale of species wherever they may occur. Their habitats are protected on public land.

Surveys were conducted to include all potential protected plant and animal species for Gwinnett and Barrow Counties, Georgia. Habitat requirements and distinguishing characteristics were noted for each species likely to occur along or in close proximity to the transmission line corridor. This list of likely occurring species served as the primary reference guide during the field survey. Those plants and animals with habitat requirements not present within the proposed right-of-way were eliminated from consideration. The USFWS county database and the Georgia DNR Nongame Conservation Service websites were consulted to verify additions or deletions to the state and federal protected plant lists and to obtain information on new records for Gwinnett and Barrow Counties (See **Appendix 9.2**, Agency Correspondence). Review of the existing literature and databases revealed that nine protected species are known to occur in Gwinnett and Barrow counties. They included three federally protected species (one candidate species) and six state protected species. Two of these are faunal and seven are floral.

To determine the possible impacts of this project on protected species, Georgia Transmission contracted with Jordan, Jones & Goulding (JJ&G) to conduct a protected species field survey along the proposed transmission line right-of-way. No evidence of any protected plant or animal species was observed in the proposed right-of-way; however, potential habitat is present for one federal candidate species (Georgia aster, *Symphotrichum georgianus*) and three state listed species (bay star-vine, *Schisandra glabra*; Altamaha shiner, *Cyprinella xanura*; and bluestripe shiner, *Cyprinella callitaenia*). **Appendix 9.1** contains JJG's protected species habitat survey report.

## **6.6 Fish and Wildlife Resources**

Existing land use and land cover near the project consists of secondary successional and mixed Hardwood – Pine forestland, utility and transportation corridors, commercial and residential development, and agricultural communities. During the field survey, suitable habitat was identified for the Altamaha shiner in Rock Creek and the Little Mulberry River and the bluestripe shiner in the Little Mulberry River and JWat10, which intersect the proposed transmission line right-of-way (See **Appendix 9.1**). The Altamaha shiner occurs in small tributaries and rivers in small pools with rocky to sandy substrates in the Upper Altamaha River

system. The bluestripe shiner is found in gravelly to sandy substrate of large rivers and their major tributaries in the Upper Apalachicola River system, the Chattahoochee River, and in brown water streams of the Coastal Plain.

### **6.7 Vegetation**

During the protected species and habitat survey, JJ&G identified vegetation along the proposed transmission line consisting predominantly of Agricultural Communities, Ruderal, Secondary Successional Mixed Hardwood-Pine, and Emergent Wetland Communities. Office review and protected species records searches revealed that seven floral protected species are listed for Gwinnett and Barrow Counties. No specimens of floral species were observed in the project area during field studies; however, potential habitat for the Georgia Aster and the bay star-vine was observed (See **Appendix 9.1**). The Georgia aster inhabits open areas that receive intermittent disturbance such as edges of transportation corridors, maintained utility right-of-ways, and other disturbed areas. The bay star-vine is found twining on subcanopy and understory trees and shrubs in rich forested bottomlands and bordering lower slopes.

### **6.8 Coastal Areas**

The National Oceanic and Atmospheric Administration (NOAA) approved the Georgia Coastal Management Program (GCMP) on January 26, 1998, pursuant to the provisions of Section 306 of the Federal Coastal Zone Management Act of 1972, as amended, 16 USC 1455 (CZMA). The GCMP is prescribed in the Georgia Coastal Management Program and Final Environmental Impact Statement (P/FEIS) published on December 5, 1997. Notice of the approval of the GCMP was published in the Federal Register on February 6, 1998.

Section III of the GCMP Program Document identifies those “Federal Assistance Programs Applicable to the Consistency Process,” with coded references to the Catalog of Federal Domestic Assistance Programs. Under the U.S. Department of Agriculture heading, Code 10.850, Rural Electrification Loans and Loan Guarantees are not included in Section III as a “listed activity” requiring federal consistency.

The Jim Moore Road – Sharon Church project is not located in a Coastal Management Zone.

## **7. ENVIRONMENTAL IMPACTS**

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### **7.1 Land Use**

#### **7.1.1 General Land Use**

The transmission line will result in the conversion of approximately 41.6–Acres (16.8–Hectares) into utility easement. The study area for the proposed Transmission Line is located in a growing, suburban area of Gwinnett and Barrow Counties, Georgia. Existing land use and land cover near the project consists of secondary successional mixed Hardwood – Pine forestland, small emergent

wetland systems, utility and transportation corridors, commercial and residential development, and agricultural communities (See **Appendix 9.1** for detailed descriptions.).

The project will not result in the conversion of land use of adjacent parcels outside the proposed project.

#### 7.1.2 Prime Farmland Soils

Gwinnett and Barrow Counties have completed soil surveys of the Jim Moore Road – Sharon Church project area. The proposed transmission line corridor contains prime farmland soils. The Natural Resources Conservation Service has determined that the utilization of prime farmland soils for transmission line easements does not necessarily result in their conversion to nonagricultural use. Land in transmission line easement can remain in cultivation; therefore, construction of the Jim Moore Road – Sharon Church Transmission Line will not have an adverse effect on prime farmland in Gwinnett and Barrow Counties.

#### 7.1.3 Formally Classified Lands

##### 7.1.3.1 *Wild and Scenic Rivers*

In Georgia, the only river designated as a Wild and Scenic River is the Chattooga River located in the extreme northeastern part of the state (16 USC 1276). The proposed project is not located near the Chattooga River; therefore, no Wild and Scenic Rivers will be affected by the construction of the proposed project.

##### 7.1.3.2 *National Forests*

The proposed project is not located in or near the Chattahoochee or Oconee National Forests; therefore, construction of the proposed project will not impact any National Forest lands.

##### 7.1.3.3 *State and Federal Parks*

Throughout Georgia, the Parks, Recreation, and Historic Sites Division of the Georgia Department of Natural Resources (GA DNR) operates 64 State Parks, conservation areas, and historic sites. The National Park Service (NPS) of the U.S. Department of the Interior (USDI) operates 11 National Battlefield Parks, National Recreation Areas, National Historic Sites, and National Monuments.

The proposed project is not located within or adjacent to any of the resource units operated by the GA DNR or any of the National Park units operated by the National Park Service of the USDI. The nearest State Park is Fort Yargo State Park, which is approximately 6.5–Miles (10.5–Kilometers) to the southeast of the project study area. The closest park to the project area is the Little Mulberry Park, a county facility located approximately 0.64–Miles (1.0 – Kilometers) to the northeast of the Jim Moore Road Substation and over 716 – Feet (0.2 – Kilometers) from the roadside portion of the transmission line on SR 324.

No direct impacts to parks will result from construction of the proposed project.

## **7.2 Floodplains**

The proposed transmission line corridor crosses two areas of mapped 100-Year floodplain associated with Rock Creek and the Little Mulberry River. The construction of the Jim Moore Road – Sharon Church Transmission Line may require the placement of a limited number of transmission line poles within the floodplain. RUS has determined that the construction of single poles within floodplains does not adversely affect floodplains. Therefore, the proposed project will not have an adverse effect on 100- Year floodplains.

## **7.3 Wetlands**

As discussed in Section 6.3 of this report, there are two jurisdictional wetlands and fifteen jurisdictional waters. Most of the jurisdictional waters will be aerially crossed only but less than five will require crossings. For all jurisdictional features, trees and other tall vegetation will be cleared within the stream buffer areas using hand-clearing techniques. No transmission line structures will be located within areas of Corps jurisdiction. Existing roads will be utilized or created within the proposed transmission line right-of-way during time of construction in upland areas to minimize impacts to jurisdictional areas, which will be authorized under a Nationwide Permit (NWP). Construction of the proposed transmission line project will cause no discharge of fill material to wetlands. These minimal impacts fall within the limits of the Nationwide 12 Permit (NWP 12); therefore the proposed project will not significantly impact wetlands. (See Appendix 9.1, *Biological Field Survey Report* for details).

## **7.4 Cultural Resources**

As described in Section 6.4 of this report, one archaeological site potentially eligible for the NRHP was encountered within the proposed transmission line easement. This subterranean site will be spanned with the nearest pole across the road. No further archeological investigations are recommended within the surveyed project area; therefore, the proposed project will have no effect on archaeological resources.

One historic structure that is eligible for nomination to the NRHP was identified within the project's APE, which will not be visible due to vegetative screening and distance. Therefore, the proposed project will have no adverse effect on eligible National Register of Historic Places resources.

## **7.5 Threatened and Endangered Species**

As indicated in Section 6.5 of this report, no evidence of any protected plant or animal species was observed in the proposed right-of-way; however, potential habitat is present for one federal candidate species (Georgia aster, *Symphotrichum georgianus*) and three state listed species (bay star-vine, *Schisandra glabra*; Altamaha shiner, *Cyprinella xaenura*; and bluestripe shiner, *Cyprinella callitaenia*). The use of existing transportation corridors and access roads will minimize grading and disturbance at stream crossings. Further, the stringent use of Best Management Practices (BMP), application of stream buffers, and hand clearing within stream buffers will be implemented to maintain water quality and minimize erosion and sedimentation.

Since habitat for the Georgia aster is forested edges along roadways and utility corridors, the conversion of land use to utility right-of-way should not adversely impact potential habitat. Due to the linear nature of the transmission line project, impacts to habitat suitable for the bay star-vine will be limited to clearing of a 100-foot right-of-way. Existing adjacent habitat will be left undisturbed; therefore, due to available surrounding habitat, the proposed project should not adversely effect the bay star vine or its overall habitat. Rock Creek, the Little Mulberry River, and JWat10, where the potential habitat for fish species was identified, will be aerially crossed with no poles located in those waters or their buffers. **Appendix 9.1** contains JJG's protected species habitat survey report.

## **7.6 Fish and Wildlife Resources**

During the field survey, suitable habitat was identified for the Altamaha shiner in Rock Creek and the Little Mulberry River and the bluestripe shiner in the Little Mulberry River and JWat10, which intersect the proposed transmission line right-of-way (See **Appendix 9.1**). The Altamaha shiner occurs in small tributaries and rivers in small pools with rocky to sandy substrates in the Upper Altamaha River system. The bluestripe shiner is found in gravelly to sandy substrate of large rivers and their major tributaries in the Upper Apalachicola River system, the Chattahoochee River, and in brown water streams of the Coastal Plain. Rock Creek, the Little Mulberry River, and JWat10, where the potential habitat for fish species was identified, will be aerially crossed with no poles located in those waters or their buffers. The use of existing transportation corridors and access roads will minimize grading and disturbance at streams. Further, the stringent use of BMPs, application of stream buffers, and hand clearing within stream buffers will be implemented to maintain water quality and minimize erosion and sedimentation. Existing stream habitat should not be adversely affected by construction of the proposed project; therefore, this project is not likely to affect the Altamaha and bluestrip shiners or their overall habitat (See **Appendix 9.1**, *Biological Field Survey Report*).

Construction of the proposed transmission line project is not anticipated to have an adverse effect on threatened and endangered fish or wildlife species.

## **7.7 Vegetation**

Construction of the transmission line will result in the conversion of approximately 41.6–Acres (16.8–Hectares) into utility easement. Any commercial timber cut during the vegetation clearing will be salvaged or disposed of properly.

No specimens of floral species were observed in the project area during field studies; however, potential habitat for the Georgia Aster and the bay star-vine was observed. Since habitat for the Georgia aster is forested edges along roadways and utility corridors, the conversion of land use to utility right-of-way should not adversely impact potential habitat. Due to the linear nature of the transmission line project, impacts to habitat suitable for the bay star-vine will be limited to clearing of a 100-foot right-of-way. Existing adjacent habitat will be left undisturbed; therefore, due to available surrounding habitat, the proposed project

should not adversely effect the bay star vine or its overall habitat. (See **Appendix 9.3**, Agency Correspondence and **Appendix 9.1**, for additional information).

Construction of the proposed transmission line project is not anticipated to have an adverse effect on threatened and endangered vegetative species.

### **7.8 Coastal Areas**

The proposed project will not be located within areas protected by the Coastal Barrier Resources Act of 1972 (16 USC part 3501 *et seq.*) or defined as coastal zone by the Coastal Zone Management Act (16 USC part 1451 *et seq.*). No impact to any area protected by the Coastal Barrier Resources Act is anticipated.

### **7.9 Air Quality**

The usual noise, dust, and vehicular emissions from construction related activity would be temporary and minimal. All pertinent local, state, and federal regulations will be complied with during construction and operation. Georgia Transmission will ensure that the project complies with State of Georgia Rules for Air Quality Control (Chapter 391-3-1) for construction activities. The construction of these facilities should have no significant impact on air quality.

### **7.10 Water Quality**

Construction of the transmission line presents the potential for erosion and runoff contributions to nearby streams. Georgia Transmission will use prudent design, construction, and erosion control measures including best management practices to avoid potential minor, short-term impacts. Trees and other tall vegetation will be cleared within the stream buffer areas using hand-clearing techniques. No transmission line structures will be located within areas of Corps jurisdiction. Off right-of-way access roads will be repaired or created at the time of construction in upland areas to minimize impacts to water quality.

Vegetated riparian areas will be left intact as much as possible (i.e., selective clearing) to serve as natural buffers for erosion control and screening. All practicable erosion control measures (e.g., silt fences and straw bales) and other best management practices will be used to avoid potential short-term water quality and wetland impacts. No fuels, lubricants, and chemicals will be stored within 30.4-meters (100-feet) of any wetland or stream areas. All attempts will be made to refuel equipment at least 30.4-meters (100-feet) from any aquatic areas.

Georgia Transmission will comply with applicable storm water management and sediment reduction regulations related to water quality protection, and will comply with the recommendations of the agencies including the Georgia Erosion and Sedimentation Act of 1975, as amended. The erosion control measures employed will be sufficient to prevent any sediment movement beyond construction limits during a 25-year storm event; therefore no adverse impacts to water resources are expected as a result of this project.

### **7.11 Aesthetics**

Visual considerations are significant factors when developing alternative sites and when making comparisons among them. The visual quality of the study area is characterized by suburban residential, developing suburban residential, pasture, and forestland uses, and existing utility and transmission line infrastructure.

Residential development in the area occurs primarily along roads with many homes within subdivisions. The visual implications of transmission line are influenced by several factors. These include the distance to the viewer, the number of structures viewed, whether visible structures are seen against backdrops (vegetation, terrain, man-made elements) or silhouetted against the skyline, the amount of vegetative modification that contrasts with surrounding landscapes, and the overall scenic condition (landscape content or context) of the area in which the facility is seen.

In open areas such as pasture, the line will be visible to the public or residences. Where practicable, its visual effects will be mitigated by locating the line where the view either is screened or has a backdrop of vegetation. Single pole construction provides a smaller silhouette than other structure types. Where the proposed transmission line parallels existing infrastructure (road, gas line, etc.), the immediate area will have the additional influence of the line where the visual quality is already affected by the existing infrastructure. Georgia Transmission will use design and construction methods to minimize the visual impact of the proposed project; therefore, no significant adverse effect to the area's aesthetic quality is expected from this project.

#### **7.12 Transportation**

The proposed facilities will not impact highway safety or navigable waterways and will not be located in close proximity to existing airports, nor will any portion of the facilities be in excess of 155-Feet (47.2-Meters) above ground level. No airport glide paths will be affected by construction of the proposed project. Briscoe Field in Gwinnett County, located approximately 4.3 – Miles (6.9 – Kilometers) southwest of the project, is the nearest airport. The Winder – Barrow County Airport is located approximately 9.1 – Miles (14.6 – Kilometers) southeast of the project. Given the distance and location, this project does not meet the criteria requiring notification of the Federal Aviation Administration (FAA), as outlined in FAA Regulations, 14 CFR Part 77, Objects Affecting Navigable Airspace. No impacts to transportation are anticipated.

#### **7.13 Noise, Radio, and Television Interference**

The proposed project could, under severe weather conditions, operate with a low level of sound; however, this sound is normally not audible beyond the right-of-way limits. There will be some noise during the clearing and construction phases of the project, but it will be localized and temporary. Thus, noise generated by the line will cause no long-term adverse effects. As the transmission line will be properly constructed and grounded, it is not expected to generate significant radio or television interference.

#### **7.14 Human Health and Safety**

To provide for public protection, the proposed transmission line will be designed to comply with the National Electrical Safety Code in effect at the time construction begins. The Cooperative's experience in designing, building, and operating this type of facility indicates that the facilities are durable, structurally sound, and pose no threat to public health and safety under normal operating conditions and anticipated emergency conditions.

### **7.15 Socioeconomic and Community Resources**

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, requires federal agencies to address potential environmental justice considerations for all federal actions by determining if a project would produce disproportionately high and/or adverse environmental and/or human health effects on minority or low-income populations. If disproportionate impacts on these populations are identified, efforts must be made by the federal agency to avoid or mitigate these effects of its project. This executive mandate requires two related assessments: the determination of whether a minority or low-income population is present within a project area, and if so, whether that population suffers disproportionately high and adverse effects from the project.

Georgia Transmission contracted with JJ&G to conduct an Environmental Justice Survey for the project study area. There are no portions of the proposed corridor in areas above the EPA threshold for low-income. The proposed transmission line briefly crosses a US Census Block that is above the EPA threshold for minority populations; however no structures are directly impacted and the transmission line will parallel a road. Since the proposed transmission line construction will not displace any low income or minority populations, the proposed project will not have an adverse effect on low-income or minority populations. (See **Appendix 9.3**, Results of the Preliminary Environmental Justice Survey)

## **8. PERMITTING AND CONSTRUCTION**

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The design and construction of the Jim Moore Road – Sharon Church 230 kV Transmission Line will follow guidelines noted in *Environmental Criteria for Electrical Transmission Systems* published jointly by the United States Departments of Agriculture and Interior. Georgia Transmission will comply with the standards required by the Georgia Erosion and Sedimentation Control Act of 1975, as amended, which mandates that appropriate erosion control measures such as seeding, straw bales, silt screens, and vegetative buffers will be utilized where appropriate to prevent degradation of surface water quality during construction and operation. Georgia Transmission will acquire any necessary permits and will comply with all pertinent local, State, and Federal regulations during the construction and operation of the project.

The usual noise, fugitive dust, and vehicular emissions from construction related activity would be temporary and minimal. The construction of these facilities should have no significant impact on the environment.